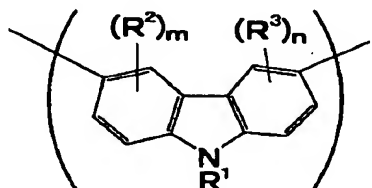


1 WHAT IS CLAIMED IS:

2

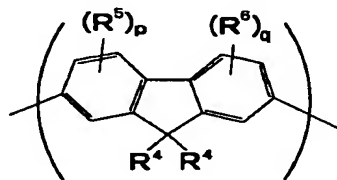
3 1. A polymer for forming an organic
4 electroluminescence device, which is composed of a
5 polymer having, in its main chain, a structural unit
6 represented by the following general formula (1-a) and a
7 structural unit represented by the following general
8 formula (1-b):

9 General formula (1-a):



10

11 wherein R¹ is an alkyl group or, an aromatic group which
12 may be substituted, R² and R³ are, independently of each
13 other, a substituent of a monovalent organic group and
14 may be the same or different from each other, m is an
15 integer of 0 to 3, and n is an integer of 0 to 3; and
16 General formula (1-b):

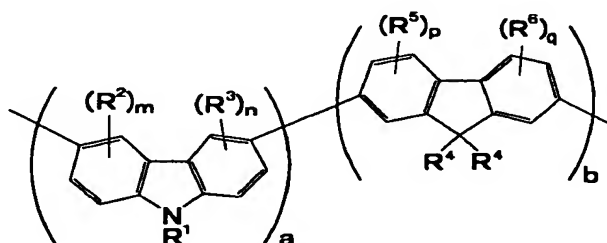


17

18 wherein R⁴ is an alkyl group, R⁵ and R⁶ are, independently
19 of each other, a monovalent organic group and may be the

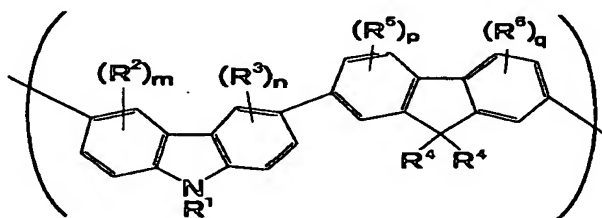
20 same or different from each other, p is an integer of 0
 21 to 3, and q is an integer of 0 to 3, and;
 22 the polymer being used for forming an electroluminescence
 23 device.

1 2. The polymer according to claim 1 for forming an
 2 organic electroluminescence device, which comprises a
 3 structural unit represented by the following general
 4 formula (a):
 5 General formula (a):



6
 7 wherein R¹ is an alkyl group or, an aromatic group
 8 which may be substituted, R² and R³ are, independently of
 9 each other, a substituent of a monovalent organic group
 10 and may be the same or different from each other, R⁴ is
 11 an alkyl group, R⁵ and R⁶ are, independently of each
 12 other, a monovalent organic group and may be the same or
 13 different from each other, m is an integer of 0 to 3, n
 14 is an integer of 0 to 3, p is an integer of 0 to 3, q is
 15 an integer of 0 to 3, and a and b are the numbers of
 16 repeated structural units.

1 3. The polymer according to claim 1 for forming an
 2 organic electroluminescence device, which comprises a
 3 structural unit represented by the following general
 4 formula (b):
 5 General formula (b):



6
 7 wherein R¹ is an alkyl group or, an aromatic group which
 8 may be substituted, R² and R³ are, independently of each
 9 other, a monovalent organic group and may be the same or
 10 different from each other, R⁴ is an alkyl group, R⁵ and R⁶
 11 are, independently of each other, a monovalent organic
 12 group and may be the same or different from each other, m
 13 is an integer of 0 to 3, n is an integer of 0 to 3, p is
 14 an integer of 0 to 3, and q is an integer of 0 to 3.

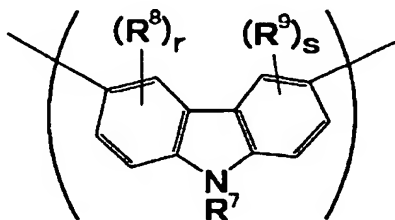
1 4. The polymer according to any one of claims 1 to
 2 3 for forming an organic electroluminescence device,
 3 which has a weight average molecular weight of 5,000 to
 4 1,000,000 in terms of polystyrene as measured by gel
 5 permeation chromatography.

1 5. A polymer composition for organic

2 electroluminescence devices, comprising a polymer
 3 component composed of the polymer according to claim 2 or
 4 3 for forming an organic electroluminescence device, and
 5 a complex component composed of an iridium complex
 6 compound that is a triplet luminescent material.

1 6. An organic electroluminescence device
 2 comprising a functional organic layer having a function
 3 as a luminescent layer or charge transport layer formed
 4 by the polymer composition according to claim 5 for
 5 organic electroluminescence devices.

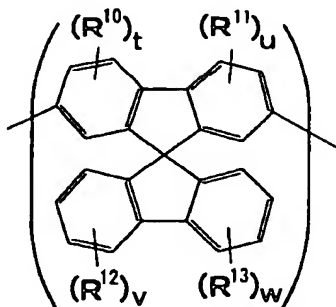
1 7. A polymer having, in its main chain, a
 2 structural unit represented by the following general
 3 formula (2-a) and a structural unit represented by the
 4 following general formula (2-b):
 5 General formula (2-a):



6
 7 wherein R^7 is an alkyl group or, an aromatic group which
 8 may be substituted, R^8 and R^9 are, independently of each
 9 other, a monovalent organic group and may be the same or
 10 different from each other, r is an integer of 0 to 3, and

11 s is an integer of 0 to 3; and

12 General formula (2-b):



13

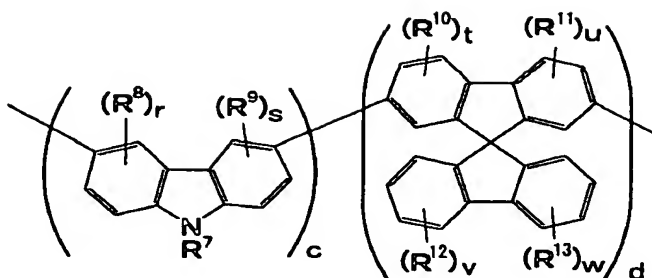
14 wherein R^{10} and R^{11} are, independently of each other, a
 15 monovalent organic group and may be the same or different
 16 from each other, R^{12} and R^{13} are, independently of each
 17 other, a monovalent organic group and may be the same or
 18 different from each other, t is an integer of 0 to 3, u
 19 is an integer of 0 to 3, v is an integer of 0 to 4, and w
 20 is an integer of 0 to 4.

1 8. A polymer for forming an organic
 2 electroluminescence device, which is composed of the
 3 polymer according to claim 7 and is used for forming an
 4 organic electroluminescence device.

1 9. The polymer according to claim 8 for forming an
 2 organic electroluminescence device, which comprises a
 3 structural unit represented by the following general
 4 formula (c):

5

6 General formula (c):



7
 8 wherein R^7 is an alkyl group or, an aromatic group which
 9 may be substituted, R^8 and R^9 are, independently of each
 10 other, a monovalent organic group and may be the same or
 11 different from each other, R^{10} and R^{11} are, independently
 12 of each other, a monovalent organic group and may be the
 13 same or different from each other, R^{12} and R^{13} are,
 14 independently of each other, a monovalent organic group
 15 and may be the same or different from each other, r is an
 16 integer of 0 to 3, s is an integer of 0 to 3, t is an
 17 integer of 0 to 3, u is an integer of 0 to 3, v is an
 18 integer of 0 to 4, w is an integer of 0 to 4, and c and d
 19 are the numbers of repeated structural units.

1 10. The polymer according to claim 9 for forming
 2 an organic electroluminescence device, wherein a ratio
 3 (d/c) of the numbers c and d of repeated structural units
 4 in the general formula (c) is 1 to 5.

1 11. The polymer according to any one of claims 8
 2 to 10 for forming an organic electroluminescence device,

3 wherein the polymer is obtained by subjecting a monomer
4 having 2 functional groups selected from reactive halide
5 functional groups and boron derivative functional groups
6 and a skeletal structure derived from carbazole, and a
7 monomer having 2 functional groups selected from reactive
8 halide functional groups and boron derivative functional
9 groups and a skeletal structure derived from
10 spirofluorene to a coupling reaction in the presence of a
11 palladium catalyst.

1 12. The polymer according to any one of claims 8
2 to 10 for forming an organic electroluminescence device,
3 which has a weight average molecular weight of 5,000 to
4 1,000,000 in terms of polystyrene as measured by gel
5 permeation chromatography.

1 13. A polymer composition for organic
2 electroluminescence devices, comprising a polymer
3 component composed of the polymer according to claim 9
4 for forming an organic electroluminescence device, and a
5 complex component composed of an iridium complex compound
6 that is a triplet luminescent material.

1 14. An organic electroluminescence device
2 comprising a functional organic layer having a function
3 as a luminescent layer or charge transport layer formed
4 by the polymer according to claim 9 for forming the

5 organic electroluminescence device.

1 15. An organic electroluminescence device
2 comprising a functional organic layer having a function
3 as a luminescent layer or charge transport layer formed
4 by the polymer composition according to claim 13 for
5 organic electroluminescence devices.

1 16. The organic electroluminescence device
2 according to claim 14 or 15, which has a hole blocking
3 layer.